



# Marxism and Ecology

## GTI Roundtable

### October 2015



John Bellamy Foster explores the resonances of Marxist and ecological thought and argues for an ecological critique of capitalism rooted in Marxist theory. Our panelists discuss the appropriate theoretical underpinnings of the fight for equitable and sustainable human development.

# GREAT TRANSITION INITIATIVE

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## TOWARD A TRANSFORMATIVE VISION AND PRAXIS



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## Contributions

### Opening Essay

**Marxism and Ecology: Common Fonts of a Great Transition** by John Bellamy Foster 1

### Roundtable

**David Barkin** 15

**Michael Brie** 19

**Hannah Holleman** 23

**Tim Jackson** 27

**Giorgos Kallis** 36

**Kent Klitgaard** 43

**Ashish Kothari** 46

**Fred Magdoff** 50

**Rasigan Maharajh** 54

### Author's Response

**Response to Comments** by John Bellamy Foster 53



# Marxism and Ecology: Common Fonts of a Great Transition

John Bellamy Foster

**Abstract:** Socialist thought is re-emerging at the forefront of the movement for global ecological and social change. In the face of the planetary emergency, theorists have unearthed a powerful ecological critique of capitalism at the foundations of Marx's materialist conception of history. This has led to a more comprehensive conception of socialism rooted in Marx's analysis of the rift in "the universal metabolism of nature" and his vision of sustainable human development. This work resonates with other approaches for understanding and advancing a Great Transition. Such a social and ecological transformation will require a two-step strategy. First, we must mount struggles for radical reforms in the present that challenge the destructive logic of capital. Second, we must build the broad movement to carry out the long revolutionary transition essential for humanity's continued development and survival.

The relationship between socialism and ecology has been complex, interdependent, and dialectical.

## Introduction

To link Marxism and ecological transition may seem at first like trying to bridge two entirely different movements and discourses, each with its own history and logic: one having mainly to do with class relations, and the other, the relation between humans and the environment. Historically, however, socialism has influenced the development of ecological thought and practice, while ecology has informed socialist thought and practice. Since the nineteenth century, the relationship between the two has been complex, interdependent, and dialectical.

Marxian approaches to the planetary ecological crisis and the socio-ecological transformation necessary for its resolution have evolved rapidly in recent decades. This has created the basis for a much more powerful, collective struggle for a Great Transition, in which values of “consumerism, individualism, and domination of nature” are replaced with “a new triad: quality of life, human solidarity, and ecological sensibility.”<sup>1</sup> The demands for a society dedicated to need rather than profit and to human equality and solidarity have long been associated with socialism. More recently, socialist thinkers have given equal importance to ecological sustainability, building on Karl Marx’s environmental critique of capitalism and his pioneering vision of sustainable human development.<sup>2</sup>

This essay unearths the deep ecological roots of Marx’s thought, showing how he brought an environmental perspective to bear on the overarching question of social transformation. From there, it traces the evolution of Marxian ecology, illuminating its profound, formative link to modern ecological economics and systems ecology. It concludes by discussing the wider project of building a social movement broad and deep enough to halt and reverse ecological and social destruction.

For the first time in human history, our species faces a dire existential choice. We can continue on the path of business as usual and risk catastrophic Earth-system change (what Frederick Engels metaphorically referred to as “the revenge” of nature”), or we can take the transformative route of social-system change aimed at egalitarian human development in coevolution with the vital parameters of the earth.<sup>3</sup> This constitutes the epochal challenge of our time: to advance radical reform measures that oppose the logic of capital in the historical present while coalescing with a long revolution to construct a new social and ecological formation that promotes sustainable human development.

## Socialism and the Origins of Systems Ecology

Ecology as understood today came into its own only with the rise of systems ecology and the concept of ecosystem. Although Ernst Haeckel, who promoted and popularized Charles Darwin’s work in Germany, coined the word ecology in 1866, the term was originally used merely as an equivalent for Darwin’s loose concept of

Marx developed a theory of ecological crisis, now known as the theory of metabolic rift.

the “economy of nature.”<sup>4</sup> This view of ecology would later gain currency as a way to address complex plant communities in botanical studies in the early twentieth century.

Yet ecology had other roots, closer to our current conception, in early work on nutrient cycling and the extension of the concept of metabolism to ecological system processes. A key figure in this respect, the great German chemist Justus von Liebig, launched a major ecological critique of British industrial agriculture in the late 1850s and early 1860s.<sup>5</sup> Liebig accused the British of developing a robbery culture, systematically leaching the soil of nutrients and thereby requiring that bones be imported from the Napoleonic battlefields and catacombs of Europe (and guano from Peru) to replenish English fields. Liebig’s analysis itself was a product of revolutions then taking place in nineteenth-century physics and chemistry. In 1845, Julius Robert von Mayer, one of the co-discoverers of the conservation of energy, had described the metabolism of organisms in thermodynamic terms. The new physiochemical thinking stressed the interrelationship between the inorganic and organic (abiotic and biotic), providing the initial basis for what was eventually to become a wider ecological systems theory.<sup>6</sup>

Drawing on the work of Liebig, and that of the socialist physician Roland Daniels, Karl Marx introduced the concept of “social metabolism,” which from the late 1850s occupied a central place in all his economic works.<sup>7</sup> Marx defined the labor process itself as a way in which “man, through his own actions, mediates, regulates and controls the metabolism between himself and nature.” Human production operated within what he called “the universal metabolism of nature.” On this basis, he developed his theory of ecological crisis proper, now known as the theory of metabolic rift, pointing to the “irreparable rift in the interdependent process of social metabolism, a metabolism prescribed by the natural laws of life itself.”<sup>8</sup> As economist Ravi Bhandari has recently written, Marxism was “the first systems theory.”<sup>9</sup> This is true not only in political-economic terms, but also in terms of the incorporation of thermodynamics and the wider metabolic relationship between nature and society into its analysis.

These two strands of ecological analysis—Haeckel’s notion of “ecology” and Liebig and Marx’s concept of a metabolic relationship between society and nature—evolved during the late nineteenth and early twentieth centuries. Beginning in the 1880s, the leading British zoologist E. Ray Lankester (Charles Darwin and Thomas Huxley’s protégé and Marx’s close friend) put forward a strong ecological critique of capitalism and the Victorian concept of progress.<sup>10</sup> Botanist Arthur George Tansley, Lankester’s student and—like him—a Fabian-type socialist, founded the British Ecological Society. He introduced the ecosystem concept in 1935 in a theoretical polemic against the racist ecological “holism” of General Jan Smuts and his followers in South Africa. In the process, he developed a broad, materialist approach to ecology that incorporated both inorganic and organic processes.<sup>11</sup>

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Ecology as we know it today thus represents the triumph of a materialist systems theory. Tansley's ecosystem concept focused on natural complexes in a state of dynamic equilibrium. Ecosystems were seen as relatively stable (resilient) complexes that were nonetheless vulnerable and subject to change. In developing this analysis, he drew on the systems perspective of the British Marxist mathematician and physicist Hyman Levy. In Tansley's framework, humanity was viewed as an "exceptionally powerful biotic factor" that disrupted and transformed natural ecosystems.<sup>12</sup> Correspondingly, ecology in our time is increasingly centered on the human disruption of ecosystems from the local to the global.

Related developments occurred in the Soviet Union. In his 1926 work *The Biosphere*, V. I. Vernadsky argued that life existed on the thin surface of a self-contained planetary sphere, was itself a geological force affecting the earth as a whole, and had an impact on the planet that grew more extensive over time.<sup>13</sup> These insights induced Nikolai Bukharin, a leading figure in the Russian Revolution and Marxian theory, to reframe historical materialism as the problem of "man in the biosphere."<sup>14</sup> Despite the purge under Stalin of Bukharin and other ecologically oriented thinkers, Vernadsky's work remained central to Soviet ecology, and later helped inspire the development of modern Earth system analysis.

With the rise of systems ecology, Marx's concepts of the "universal metabolism of nature," the "social metabolism," and the metabolic rift have proven invaluable for modeling the complex relation between social-productive systems, particularly capitalism, and the larger ecological systems in which they are embedded. This approach to the human-social relation to nature, deeply interwoven with Marx's critique of capitalist class society, gives historical materialism a unique perspective on the contemporary ecological crisis and the challenge of transition. Marx wrote of a rift in the soil metabolism caused by industrialized agriculture. Essential soil nutrients, such as nitrogen, phosphorus, and potassium contained in food or fiber were shipped for hundreds, even thousands, of miles to densely populated cities, where they ended up as waste, exacerbating urban pollution while being lost to the soil. He went on to emphasize the need for rational regulation of the metabolism between human beings and nature as fundamental to creating a rational society beyond capitalism. Socialism was defined in ecological terms, requiring that "socialized man, the associated producers, govern the human metabolism of nature in a rational way... accomplishing it with the least expenditure of energy and in conditions most worthy and appropriate for their human nature." The earth or land constituted "the inalienable condition for the existence and reproduction of the chain of human generations." As he declared in *Capital*, "Even an entire society, a nation, or all simultaneously existing societies taken together, are not owners of the earth. They are simply its possessors, its beneficiaries, and have to bequeath it in an improved state to succeeding generations as *boni patres familias* [good heads of the household]."<sup>15</sup>

## Marxism's Great Divide and the Ecological Problem

Yet, if classical historical materialism embodied a powerful ecological critique, why was this forgotten for so long within the main body of Marxist thought? One partial answer can be found in the observation of the early twentieth century revolutionary socialist Rosa Luxemburg that many aspects of Marx's vast theoretical framework extending beyond the immediate needs of the working-class movement would be discovered and incorporated much later, as the socialist movement matured and new historical challenges arose.<sup>16</sup> A more direct explanation, however, is the fact that Marx's ecological ideas fell victim to the great split that opened in the 1930s between Western Marxism and Soviet Marxism.

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Intellectually, the schism within Marxism centered on the applicability of dialectics to the natural realm, and the position on this of Marx and Engels. The concept of the "dialectics of nature" was more closely identified with Engels than Marx. Engels argued that dialectical reasoning—focusing on the contingent character of reality, contradictory (or incompatible) developments within the same relation, the interpenetration of opposites, quantitative change giving rise to qualitative transformation, and processes of historical transcendence—was essential to our understanding of the complexity and dynamism of the physical world. This, however, raised deep philosophical problems (both ontological and epistemological) within Marxian discourse.

Soviet thinkers continued to see complex, historical, interconnected views of development, associated with dialectical reasoning, as essential to the understanding of nature and science. Yet, while Marxism in the Soviet Union continued to embrace natural science, its analysis often assumed a dogmatic character, combined with an exaggerated technological optimism. This rigidity was reinforced by Lysenkoism, which criticized Darwinian natural selection and Mendelian genetics, and took on a politically repressive role during the purges of the scientific community in the Stalin period.<sup>17</sup>

In contrast, the philosophical tradition known as Western Marxism dissociated Marxism and the dialectic from questions of nature and science, claiming that dialectical reasoning, given its reflexive character, applied to human consciousness (and human society) only and could not be applied to the external natural world.<sup>18</sup> Hence, Western Marxists, as represented most notably in this respect by the Frankfurt School, developed ecological critiques that were largely philosophical and abstract, closely related to ethical concerns that were later to dominate Green philosophy, but distant from ecological science and issues of materialism. Neglect of natural-scientific developments and a strong anti-technology bent placed sharp limits on the contributions of most Western Marxists to an ecological dialogue.



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From the 1950s to 1970s, when the modern environmental movement first developed, some pioneering environmental thinkers, such as radical ecological economist K. William Kapp and socialist biologist Barry Commoner, reached back to Marx's idea of metabolic rift in explaining ecological contradictions.<sup>19</sup> However, in the 1980s, a distinct tradition of ecosocialism arose in the work of major New Left figures, including British sociologist Ted Benton and French social philosopher André Gorz. These important, early ecosocialist thinkers employed the new ecologism of Green theory to criticize Marx for allegedly failing to address questions of sustainability. In Benton's view, Marx, in his critique of Thomas Malthus, had thrown the baby out with the bathwater, downplaying and even denying natural limits.<sup>20</sup> The response these thinkers offered was to graft the general assumptions of mainstream Green thought (including Malthusian notions) onto Marxian class analysis. The journal *Capitalism Nature Socialism*, founded by Marxian economist James O'Connor in the late 1980s, generally denied any meaningful relation to ecology in Marx's work itself, insisting that prevailing ecological concepts should simply be joined, in a centaur-like fashion, with Marxian class-based perspectives—a position known today as “first-stage ecosocialism.”<sup>21</sup>

The hybrid approach changed in the late 1990s when others, most notably Paul Burkett, demonstrated the deep ecological context in which Marx's original critique had been constructed. The new analysis included the systematic reconstruction of Marx's argument on social metabolism. The result was the development of important Marxian ecological concepts, together with a reunification of Marxian theory. Hence, “second-stage ecosocialists,” or ecological Marxists, like Burkett have reincorporated Engels's major contributions to ecological thought, associated with his explorations of the dialectics of nature, into the core of Marxian theory, seeing Marx and Engels's work as complementary.<sup>22</sup>

More recently, the importance of late Soviet ecology has come to light. Despite its tortuous history, Soviet science, particularly in the post-Stalin period, continued to give rise to a dialectical understanding of interdependent natural and historical processes. A key innovation was the concept of biogeocoenosis (equivalent to ecosystem but emerging from the Vernadsky tradition of the impact of life on the earth), developed in the early 1940s by the botanist and silviculturalist Nikolaevich Sukachev. Another critical systemic insight was Soviet climatologist Michael Budyko's discovery in the early 1960s of the albedo-ice feedback, which made climate change a pressing issue for the first time. By the 1970s, recognition of “global ecology” as a distinct problem related to the Earth system grew in the Soviet Union—in some respects, ahead of the West. It is not by chance that the word “Anthropocene” first appeared in English in the early 1970s in *The Great Soviet Encyclopedia*.<sup>23</sup>

## Marxism and Ecological Economics

By the dawn of the twenty-first century, awareness of Marx's ecological analysis inspired a radical reappraisal of Marxism in line with classical foundations of historical materialism and its underlying ecological framework. For a long time, Marxian thinkers, particularly in the West, had lamented that Marx had wasted much time and energy on what then seemed to be esoteric topics related to science and unrelated to the presumed narrow social scientific bases of his own theory. Marx attended with great interest some of the lectures on solar energy by British physicist John Tyndall, over the course of which Tyndall reported on his experiments demonstrating for the first time that carbon dioxide emissions contributed to the greenhouse effect. Marx also took detailed notes on how the shifting isotherms on the earth's surface due to climate change led to species extinction over the course of earth history. He noted how anthropogenic regional climate change in the form of desertification contributed to the fall of ancient civilizations, and considered the way this would likely play out within capitalism.<sup>24</sup> Today, the rise of socialist ecology in response to changing conditions has led to a growing appreciation—as Luxemburg anticipated—of such wider aspects of Marx's science and their essential role in his system of thought.

Central to the destructive dynamic was capital's inherent drive to accumulate on an ever greater scale.

Marx's (and Engels's) approach to ecological economics took shape from a critique of production, and particularly capitalist commodity production. All commodities were conceived as having the dual forms of use value and exchange value, related respectively to natural-material conditions and monetary-exchange valuations. Marx saw the antagonistic tension between use value and exchange value as key to both the internal contradictions of capitalism and its conflict with its external natural environment. He insisted that nature and labor together constituted the dual sources of all wealth. By incorporating only labor (or human services) into economic value calculations, capitalism ensured that the ecological and social costs of production would be excluded from the bottom line. Indeed, classical liberal political economy, Marx argued, treated the natural conditions of production (raw materials, energy, the fertility of the soil, etc.) as "free gifts of nature" to capital. He based the critique on an open-system thermodynamics, in which production is constrained by a solar budget and by limited supplies of fossil fuels—referred to by Engels as "past solar heat"—that was being systematically "squandered."<sup>25</sup>

In Marx's critique, the social metabolism, i.e., the labor-and-production process, necessarily drew its energy and resources from the larger universal metabolism of nature. However, the antagonistic form of capitalist production—treating natural boundaries as mere barriers to be surmounted—led inexorably to a metabolic rift, systematically undermining the ecological foundations of human existence. "By destroying the circumstances of this metabolism" related to "the eternal natural condition" governing human production, this same process, Marx wrote, "compels its

Marxian ecological theory emphasizes unequal ecological exchange, or ecological imperialism.

systematic restoration as a regulative law of social production, and in a form adequate to the human race”—albeit in a future society transcending capitalist commodity production.<sup>26</sup>

Central to the destructive dynamic was capital's inherent drive to accumulate on an ever greater scale. Capital as a system was intrinsically geared to the maximum possible accumulation and throughput of matter and energy, regardless of human needs or natural limits.<sup>27</sup> In Marx's understanding of the capitalist economy, the correlation of material flows (related to use value) and labor-value flows (related to exchange value) leads to an intensifying contradiction between the imperatives of environmental resilience and economic growth.

Burkett delineates two different sources of such imbalance underpinning ecological crisis theory in Marx. One of these takes the form of economic crises associated with resource scarcities and the concomitant increases in costs on the supply side, which squeeze profit margins. Ecological crises of this kind have a negative effect on accumulation and naturally lead to responses on the part of capital, e.g., energy conservation as an economizing measure.

The other type, the ecological crisis proper, is quite different, and is most fully developed in Marx's conception of the metabolic rift. It concerns the interplay between the degradation of the environment and human development in ways not accounted for in standard economic metrics like GDP. For example, the extinction of species or the destruction of whole ecosystems is logically compatible with the expansion of capitalist production and economic growth. Such negative ecological impacts are designated as “externalities” since nature is treated as a free gift. As a result, no direct feedback mechanism intrinsic to the capitalist system prevents environmental degradation on a planetary scale.

A distinctive characteristic of Marxian ecological theory has been an emphasis on unequal ecological exchange, or ecological imperialism, in which it is understood that one country can ecologically exploit another. This can be seen in Marx's famous reference to how, for more than a century, England had “indirectly exported the soil of Ireland,” undermining the long-term fertility of Irish agriculture. In recent years, Marxian theorists have extended this analysis of ecological imperialism, coming to see it as integral to all attempts to address the ecological problem.<sup>28</sup>

### Marxian Rift Analysis and Planetary Boundaries

As described above, Marx's theory of metabolic rift grew out of a response to this nineteenth century crisis of soil fertility. The problems of accelerated tempo, increasing scale, and spatial disjuncture (separation of town and country) in capitalist production were already systematically stressed by Marx in the mid-nineteenth century. In recent years, Marxian theorists have built on this perspective to explore the global rift in the carbon metabolism and a host of other sustainability issues.<sup>29</sup>

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For several decades, socialist ecologists have argued that capitalism has generated an acceleration of the human transformation of the Earth system, occurring in two major phases: (1) the industrial revolution beginning at the end of the eighteenth century and (2) the rise of monopoly capitalism, particularly in its mature stage following the Second World War—including the post-war scientific-technical revolution marked by the development of nuclear power and widespread commercial use of synthetic chemicals.<sup>30</sup>

Thus, socialist ecological theorists were quick to embrace the explanatory power of the Anthropocene, which highlights the epoch-making emergence of modern human society as the major planetary geological force governing changes in the Earth system. Closely related to this rich insight, leading Earth System scientists introduced the planetary boundaries framework in 2009 to delineate a safe space for humanity defined by nine planetary boundaries, most of which are currently in the process of being crossed. In our 2010 book *The Ecological Rift*, Brett Clark, Richard York, and I integrated the Marxian metabolic rift analysis with the planetary-boundaries framework, describing it as rifts in the Earth system. In this view, today's planetary emergency could be called "the global ecological rift," encapsulating the disruption and destabilization of the human relationship to nature on a planetary scale which arises from the process of capital accumulation without end.<sup>31</sup>

## The Great Convergence

The integrative concept of "the global ecological rift" represents a growing convergence of Marxian ecological analysis with Earth system theory and the Great Transition perspective, which share a complex, interconnected evolution. Marxian ecologists today start with the critique of *economic growth* (in its more abstract characterization) or *capital accumulation* (viewed more concretely). Continued exponential economic growth cannot occur without expanding rifts in the Earth system. Therefore, society, particularly in rich countries, must move towards a stationary state or steady-state economy, which requires a shift to an economy without net capital formation, one that stays within the solar budget. Development, particularly in the rich economies, must assume a new form: qualitative, collective, and cultural—emphasizing sustainable human development in harmony with Marx's original view of socialism. As Lewis Mumford argued, a stationary state, promoting ecological ends, requires for its fulfillment the egalitarian conditions of "basic communism," with production determined "according to need, not according to ability or productive contribution."<sup>32</sup> Such a shift away from capital accumulation and towards a system of meeting collective needs based on the principle of enough is obviously impossible in any meaningful sense under the regime of capital accumulation. What is required, then, is an ecological and social revolution that will facilitate a society of ecological sustainability and substantive equality.

If the objective necessity of such an ecological revolution is now clear, the more difficult question of how to carry out the necessary social transformations remains.

The ecosocialist movement has adopted the slogan System Change Not Climate Change, but a capitalist system deeply entrenched worldwide infuses the current omnipresent reality. The dominance of the capitalist mode of production means that revolutionary change on the scale needed to confront the planetary environmental emergency remains beyond the immediate social horizon.

However, we need to take seriously the nonlinear, contingent relation of everything related to human development. The conservative nineteenth-century cultural theorist Jacob Burckhardt used the term “historical crisis” to refer to situations in which “a crisis in the whole state of things is produced, involving whole epochs and all or many peoples of the same civilization.” He explained, “The historical process is suddenly accelerated in terrifying fashion. Developments which otherwise take centuries seem to flit by like phantoms in months or weeks, and are fulfilled.”<sup>33</sup> That revolutionary accelerations of the historical process have occurred in the past around the organization of human society itself is not to be doubted. We can point not only to the great political revolutions, but also beyond, to such fundamental transformations in production as the original Agricultural Revolution and the Industrial Revolution. Today, we need an Ecological Revolution equivalent in depth and scope to these earlier transformations.

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The obvious difficulty is the speed—and, in some respects, irreversibility—of encroaching environmental havoc. The concomitant acceleration of the historical process to address the crisis must therefore start now. Underestimating the scale of the problem will prove fatal. In order to avoid hitting the trillionth cumulative tonne of combusted carbon, equivalent to a 2° C increase in global temperature, carbon emissions must fall by a rate of around 3 percent per annum globally. This would require rich nations to cut their emissions by more than twice that rate. As always, we must act with the tools we have, and remember that no mere technical fix can solve a problem based in the systematic maximization of exponential economic growth ad infinitum. Hence, “a revolutionary reconstitution of society at large,” altering the system of social-metabolic reproduction, provides the only alternative to the impending “common ruin of the contending classes.”<sup>34</sup>

For Marxist ecological thinkers, this dire state of affairs has led to the development of a two-stage strategy for ecological and social revolution. The first stage focuses on “What Can Be Done Now?”—that is, on what is realistic in the short term under present-day conditions, while necessarily going against the logic of capital accumulation. This could be considered the ecodeмократic phase in the worldwide ecological revolution. Under prevailing conditions, a wide array of drastic changes needs to be fought for within a broad-based radical movement.<sup>35</sup> Such an effort would need to include measures like the following: a carbon-fee-and-dividend system, with 100 percent of the revenue being redistributed back to the population on a per capita basis; a ban on coal fired plants and unconventional fossil fuels (such as tar sands oil); a vast shift to solar and wind power and other sustainable energy

In the not-too-distant future, an “environmental proletariat” will almost inevitably emerge.

alternatives, such as energy efficiency, financed by cutbacks in military spending; a moratorium on economic growth in the rich economies in order to reduce carbon emissions, coupled with radical redistribution (and measures to protect the less well-off); and a new international climate negotiation process modeled on the egalitarian and ecocentric principles of the Peoples’ Agreement of the World Peoples’ Conference on Climate Change in Bolivia in 2010.<sup>36</sup>

These emergency measures all run against the prevailing logic of capital accumulation, but nevertheless can conceivably be advanced under present conditions. Along with a wide array of similar initiatives, such measures constitute the rational and realistic starting point for an ecological and social revolution, and a means with which to mobilize the general public. We cannot replace the whole system overnight. The battle must start in the present and extend into the future, accelerating in the mid-term and ending with a new social metabolism geared to sustainable human development.

The long term goal of systemic transformation raises the issue of a second stage of ecological revolution, or the ecosocialist phase. The primary question, of course, is the historical conditions under which this change can come about. Marx referred to the environmental pressures of his day as an “unconscious socialist tendency,” which would require associated producers to regulate the social metabolism with nature in a rational way.<sup>37</sup> This tendency, however, can only be realized as the result of a revolution carried out by the greater part of humanity, establishing more egalitarian conditions and processes for governing global society, including the requisite ecological, social, and economic planning.

In the not-too-distant future, an “environmental proletariat”—signs of which are already present—will almost inevitably emerge from the combination of ecological degradation and economic hardship, particularly at the bottom of society. In these circumstances, the material crises affecting people’s lives will become increasingly indistinguishable in their manifold ecological and economic effects (e.g., food crises). Such conditions will compel the working population of the earth to revolt against the system. What we often misleadingly call the “middle class”—those above the working poor but with little vested interest in the system—will doubtless be drawn into this struggle too. As in all revolutionary situations, some of the more enlightened elements of the ruling class will surely abandon their class interests in favor of humanity and the earth. Since the challenge of maintaining a resilient earth will face the younger generations the most, we can expect that youth will become disenchanted and radicalized as the material conditions of existence deteriorate. Historically, women have been especially concerned with issues of natural and social reproduction and will undoubtedly be at the forefront of the struggle for a more ecologically oriented global society as well.

In this Great Transition, I believe socialists will play the leading role, even as the meaning of socialism evolves, taking on a wider connotation in the course of the

struggle. The great artist, writer, and socialist William Morris famously declared, “Men fight and lose the battle, and the thing they fought for comes about in spite of their defeat, and when it comes turns out not to be what they meant, and other men have to fight for what they meant under another name.”<sup>38</sup> Today, the age-old struggle for human freedom and meaning has reached an endgame. In the new epoch before us, our task is clear: to fight for equitable and sustainable human development in lasting accord with the earth.

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## About the Author



John Bellamy Foster is the editor of *Monthly Review* and a professor of sociology at the University of Oregon. His research focuses on economic, political, and ecological problems of capitalism and imperialism. His recent books include *The Ecological Rift* (with Brett Clark and Richard York), *What Every Environmentalist Needs to Know about Capitalism* (with Fred Magdoff), and *Marx and the Earth* (with Paul Burkett, forthcoming 2016).

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# Roundtable



## David Barkin

John Bellamy Foster has presented us with an exciting challenge: a fight for equitable and sustainable human development. In his short essay, at once informative and formative, Foster again enters into a gladiator's arena, well-armed and good natured, to attempt to slay the dragons among the more enlightened, but not necessarily more willing, to motivate us to abandon the shackles of systemic immobility.

Having worked for more than a half century among peoples engaged in creating new worlds for themselves, I would like to report on how the marriage of ecology and Marxism is alive and well, thriving among the hundreds of millions who have deliberately chosen to remove themselves from the binds of the international marketplace and the national institutions that continue to attempt to ensnare them. Throughout the world, communities are joined in regional, national, and international alliances to protect their systems of governance, their quality of life, and the ecosystems on which we all depend. These peoples are not involved in "rear-guard" actions to simply remember the past, their customs, and their heritage; while not all Marxists or even ecologists, they are generally knowledgeable participants in modern societies in which the seemingly inexorable advance of capital and national integration is attacking their very means of sustenance and the ability to defend their organizations and societies.

The remarkable quality of Foster's essay is that it offers us an insight into the dynamic processes of the advance of knowledge and understanding. Although he finds many clues for his ongoing efforts to promote the marriage of ecology and Marxism in the work of scholars of the nineteenth century, we can only appreciate their significance today, as Luxemburg said in 1903 would happen (mentioned by Foster). Likewise, we are finding that many of the inherited cosmologies and traditions of the peoples forging their new "post-capitalist societies" (as I label



them) today draw on the rich fount of wisdom transmitted through centuries or millennia. In spite of the fact that well-respected scholars are proposing the need for a “post-normal science” (Silvio Funtowicz and Jerome Ravetz), “post-development” (Arturo Escobar), or “epistemologies of the south” (Boaventura de Sousa Santos) that go far beyond the tepid innovations offered by efforts at inter- or transdisciplinary collaborations, most discussions do not move beyond the confines of intercultural exchanges.

Unfortunately, a profound chasm continues to pervade the initiatives to generate a genuine “dialogue among knowledge systems” (*dialogo de saberes*, as we say in Spanish). Many of these new approaches are coming from the Global South, where myriad societies are resisting the intensifying efforts to integrate them into the homogenizing process of “internationalization.” Some of this resistance is taking the form of violent confrontations that often confound a struggle for resources and power with efforts to defend and extend the reach of these different cosmologies; these are not always the appropriate arenas for melding the principles of ecology and Marxism. Elsewhere, however, peoples are strengthening their social organizations and political structures to assure their capability to govern themselves and to maintain their autonomy, while also reorganizing their productive systems, gleaning knowledge from the frontiers of scientific and technical innovation to improve their ability to supply their own needs and to exchange with their allies. They are building societies based on solidarity and equity, sustainable within their limits and their ability to defend against the incursions of the land grabbers, miners, water companies, and energy consortia who covet their resources, their territories, and their reserves of “cheap” labor. Throughout Latin America today there are literally thousands of confrontations between these parties in conflict—encounters that are costing the lives of hundreds if not thousands of people actively involved in these defensive actions.

These post-capitalist societies are not the idyllic communes or kibbutzim of a past epoch, with starry-eyed colonists occupying territories that often were not their own. No, these societies are comprised by men and women defending the territories they inherited or were granted after



fierce struggles with the latter-day inheritors of a colonial or neo-colonial past. When we read of the new triad proposed by Paul Raskin in the original GTI report, “quality of life, human solidarity, and ecological sensibility,” I cannot but think of these societies, fighting “tooth and nail” to defend the very essence of their lives, against the imperatives of seemingly unstoppable capital accumulation, often as part of a new wave of “sustainable development”: REDD+, renewable energies, and efficient delivery of social services, components of the green economy package that will be so unsuccessfully negotiated at the forthcoming Paris meeting of the Parties (COP 21).

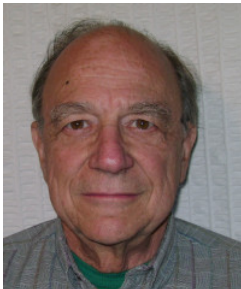
Lest I be accused of rhetorical bombast, I would like to end this comment with a few references to some societies actually engaged in the transformations to which I alluded. There are the communities organized in more than 70 countries as part of the Indigenous Peoples’ and Community Conserved Areas and Territories Network. The international peasant movement, *Vía Campesina*, engages more than 100 million people in 164 organizations in 73 countries. The Landless Workers’ Movement in Brazil (which is part of the *Via Campesina*) has about 1.5 million members. Tens of thousands in the Sierra Juarez of Oaxaca (Mexico) are reclaiming their traditions of yore, and the Zapatista movement in Chiapas has successfully organized more than 500,000 people in southern Mexico to achieve the objectives mentioned above. Of course, there are also the indigenous peoples in the Andes and the Amazon, the First Nations in Canada, and their brethren in the United States of America. In India, we read of the activities of literally hundreds of millions of people in communities actively forging their own alternatives, often informed by a Gandhian heritage, while the New Rural Reconstruction Movement reports the resistance of several hundred million Chinese also seeking to build a more benign way of life, in place of the penury of recent and past epochs. There are, of course, hundreds or thousands of other examples throughout the world some of which I have spoken about in some of my own writings. These organizations are not the stereotypical inheritors of past “socialist” movements, nor can they be the leaders of a future world revolution. Rather, they are taking the principles that Foster is explicating one step further, enriching them with their store of spiritual and practical knowledge and experience, to prosecute the courageous struggles that are essential for



the great transformation. For the members of the GTN, they pose a challenge: Can we abandon the confines of our institutions and even the societies that are rapidly destroying the very basis of human existence?

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### About the Author



David Barkin is a professor at the Metropolitan University in Mexico City, where he has taught since 1975, and an emeritus member of the National Research Council and the Academy of Sciences in Mexico. He has taught in many countries, including the US, France, Spain, Cuba, and Chile, and has published 22 books and more than 200 referred articles in scientific journals. His research focuses on ecological economics, alternative paradigms for society, and the problems of indigenous societies, with whom he collaborates in creating designs for alternative futures. His work is oriented to having an impact on the daily lives of marginal peoples in Latin America and in changing the dominant paradigms in the academy.

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## Michael Brie

John Bellamy Foster's essay on Marxism and ecology starts with the thesis "Socialist thought is re-emerging at the forefront of the movement for global ecological and social changes." Two important tasks are drawn from this thesis: "First, we must mount struggles for radical reforms in the present that challenge the destructive logic of capital. Second, we must build the broad movement to carry out the long revolutionary transition essential for humanity's continued development and survival." These are indeed the most urgent tasks of our time alongside the related duty to do whatever we can to stop and prevent wars and reduce violence.

But why is it so difficult to face these tasks? To answer this question, one should not forget Joseph Schumpeter's lesson. This lesson is the other side of Marx's critique of the accumulation of capital. Let me start with a short story told by Felix Somary, who met Joseph Schumpeter and Max Weber in 1918 in Vienna. Somary remembered,

*The conversation had arrived at the Russian Revolution, and Schumpeter had expressed his pleasure about the fact that socialism...must prove its viability. Agitated Weber declared that...the Russians would suffer unprecedented human misery and the experiment would end in a terrible disaster. 'I guess so', Schumpeter said, 'but this will be quite a nice laboratory for us.' 'A laboratory with human corpses heaping', Weber went on. 'This is like in all anatomic experiments', Schumpeter said.<sup>1</sup>*

Seventy years later, the successor of the Bolsheviks, the Communist leadership of the Soviet Union, started to introduce reforms which reopened the way to capitalism in Russia after defeating Nazi Germany in the most terrible war the world has seen and withstanding the alliance of the most successful capitalist powers in the long Cold War.



To speak about the destructive logic of capital and to be silent about the creative logic of the same capital fails to address some parts of the aforementioned burning questions of socio-ecological transformation—concerning both the content of reforms and the forces to implement them. It was Marx and Engels in *The Communist Manifesto* who celebrated the revolutionary character of the capitalist mode of production. It was they who forecasted the fall down of the Berlin Wall:

*The cheap prices of its commodities are the heavy artillery with which it batters down all Chinese walls, with which it forces the barbarians' intensely obstinate hatred of foreigners to capitulate. It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilisation into their midst, i.e., to become bourgeois themselves. In one word, it creates a world after its own image.<sup>2</sup>*

We must stress the global destruction that the endless capitalist growth-oriented accumulation creates. But we should be aware of the attraction this growth creates, the dreams of an American way of life for all it stimulates, the coalition it forms, and the followings it enforces. Climate change is pressing, but much more pressing are the demands of billions of people to take active part in the capitalist game. Overcoming capitalism implies changing the desires of billions of people.

Marx's *Capital* is the most profound analysis of the capitalist accumulation process under the point of view of exploitation (of the workers, of land, of the colonial societies), and this concept has been extended to all spheres of human life and nature and all social forms (class, gender, race, body). In his rare description of a post-capitalist society, of early or later stages of communism, Marx took one condition for granted: the ability of these societies to innovate and form the basis for the free development of everybody as the condition of the free development of all. But what happens when the transformation beyond capitalism is destroying precisely this condition? If the space of freedom is abolished? If innovation is replaced by stagnation (the term Gorbachev used with regard to the Brezhnev time)? Other socialist or communist experiments





(like in Yugoslavia or the Kibbutzim) shared the same fate. They were quit by the sons and daughters of their founders. Communist China started the largest project of building up a type of political capitalism ever. One may summarize these experiences with the words: who does not speak about the strengths of capitalism should be silent about socialism and socio-ecological transformation. Any alternative to the capitalist mode of development has to keep and reshape the innovative capacity modern society in its capitalist form realized for the first time in human history. And ecologists and socialists alike have to analyze this capacity to redirect it for the sake of socio-ecological transformation.

As Karl Polanyi wrote, “Industrial civilisation unhinged the elements of man’s being.”<sup>3</sup> Labor power, land, raw materials, and knowledge are thrown and forced onto the market. They acquire a monetary form as wages, rent, interest, or price. At the same time, resources can be combined almost at will. So the separation has a creative side: it makes the “realisation of new combinations” of economic factors possible in the first place. This combination is the starting condition for the developmental capacity of bourgeois capitalist societies, as Schumpeter analyzed them.<sup>4</sup> Bourgeois capitalist societies set free resources which can then be recombined, and they burst apart the cohesion of nature, life worlds, societal institutions, and culture. Almost every natural resource on the planet, all labor power in any community, all assets in whoever’s hands, and any form of knowledge are exposed to entrepreneurial involvement. Violence, this secret of every society, acquired a new goal and the new function of dispossession as the preparatory stage for recombination. The capitalist type of accumulation can be described—paraphrasing Schumpeter—as destructive creation.

John Bellamy Foster’s transformation includes concrete proposals of a transition from current neoliberal destructive creation to constructive destruction of the current mode of development, setting free the elements of a totally different mode of development. It would include an alliance of lower classes and solidarity-oriented middle classes, a way of production and life based on the luxury of the commons, solidarity forms of social and ecological oriented entrepreneurship,





and a new type of democracy. Schumpeter's lesson can be learned: for the sake of another world, let's make another type of entrepreneurial combinations of the human and the natural resources possible. These new entrepreneurs—often cooperatives, peer-to-peer communities, solidarity networks—can become the avant-garde of a socio-ecological transformation. The world of tomorrow is dancing in the crisis-ridden capitalism of today. It depends on these forms of entrepreneurship of Commoners to make the world of tomorrow irresistible.

### Endnotes

1. Felix Somary, *Erinnerungen eines politischen Meteorologen* (München: Matthes & Seitz Berlin, 1994), 179.
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3. Karl Polanyi, "On Belief in Economic Determinism," *Sociological Review* 39, no. 1 (1947): 97.
4. Joseph Schumpeter, *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process* (London: McGraw-Hill Books, 1964).

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### About the Author



Michael Brie is a social philosopher at the Institute for Critical Social Analysis of the Rosa Luxemburg Foundation in Berlin. His research focusses on the theory and history of socialism, the socio-ecological transformation of modern societies, and strategic questions of the Left in the crisis of neoliberalism. His most recent publications include are on the thought of Karl Polanyi and Robert Owen. He is editor of the series *Contribution to Critical Transformation Research* published by VSA.

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## Hannah Holleman

When Marxian analyses of contemporary issues are presented, one of the implicit or explicit questions I sometimes hear is “Why Bother with Marx?” Disparaging commentators often repeat intellectually suspect dismissals of Marxist traditions via worn references to the USSR. Such references are old, tired ways of dismissing or attempting to discredit not only Marxism as an intellectual tradition, but also movements and ideas in general seeking to transcend the barbarity of capitalist society.

The United States—the country in which I live and where such commentary is routine—has a long history of ideological and violent repression of domestic and international movements working toward transition away from the inhumanity and ecological rapaciousness of the system of capital. As the leading economic and military defender of the system, the US, in tandem with elites elsewhere, has vanquished the democratic hopes of millions around the world when they dared, even through the ballot, to bring forward a more humane, egalitarian, democratic, and in some cases ecologically-oriented politics, attempting to overcome centuries of elite oppression and exploitation.

It is not only acceptable but also encouraged within this context to dismiss lines of thought that connect to the history of transformative movements and related intellectual traditions. Without any real engagement or study, even scholars are comfortable mischaracterizing, attacking, or simply dismissing attempts to draw on the great advances of these movements, both in thought and action, in order to see the continuities and contributions to our struggles today.

Marx obviously did not invent socialism, nor did he posthumously instigate the Russian Revolution. He was, however, active within and dedicated to the revolutionary movements of his era confronting the consequences of what Karl Polanyi famously called “The Great Transformation.” Moreover, in reference to Russia, for anyone serious about transformative social



change, there is much to learn regarding how regular people organized collectively to transform a brutal social system, even if the revolution was defeated and the society took on characteristics unfortunately resembling some of the worst excesses and practices supported in and by capitalist societies. This loss, then what happened during perestroika and glasnost, and other examples, like the counterrevolutionary attacks of the so-called neoliberal period, should serve to forewarn those working toward a Great Transition. There is no end point for transition—whatever is accomplished must be defended, as all history of social change shows.

One reason Foster's work is important, within the context I described above (not limited to the US), is that in recovering and clarifying intellectual history, we learn about the real interplay between ideas and socio-ecological change. Beyond his work on Marx and Engels, Foster has clarified much of the origins and development of our current ecological and economic thinking and the relation of these to political movements. This is so important for scholars and activists wading through politically motivated distortions of intellectual traditions, including ecology and Marxism, and the co-opted textbook versions of our great progressive movements.

By recovering intellectual history, we gain perspective on the milieu and commitments that allow some to see farther than others in not taking anything about the present for granted, the intellectual freedom of being unafraid to engage the "*ruthless criticism* of all that exists, ruthless both in the sense of not being afraid of the results it arrives at and in the sense of being just as little afraid of conflict with the powers that be."<sup>1</sup> It is instructive for scholars and activists to understand the insights born of a methodological and theoretical approach unbound by the false separation between what we think and do, between science and the struggles for change. We gain insight into how we might build upon earlier advancements in understanding of the complex relationship between human and societal development, and the broader developments of natural history. And we learn to think about ways to bring this understanding to bear on efforts toward socio-ecological change.



Foster and others whose work benefits from familiarity with a broad range of intellectual and activist traditions, and their interrelation, also do something else for contemporary struggles. Criticisms of Marx's work, and often by proxy all those (from the Dalai Lama to Naomi Klein) who are open about their intellectual debt to Marxian critique or traditions which have opened up new lines of inquiry and thinking by challenging superficial, reductionist, ahistorical, elitist modes of thought in the society at large, in political circles, and in the academy, often rely on profound mischaracterizations or ignorance of his work. Foster makes it increasingly difficult for such mischaracterizations to play the role of bludgeon to get would-be activists in line with more "acceptable" ideas and movement goals, those that do not threaten the status quo and are incapable of leading toward a truly great transition.

So, in response to the "Why Bother" dismissals, I ask readers to consider, "Why Not?" Who stands to lose by learning from those who committed their lives to struggle and a deeper understanding the world in which we live? The earth itself and 99% of its inhabitants have everything to gain from understanding more of our history, including why there is such ideological attack on Marxism, and the relation of this to why they are not taught anything, even if they live in a nominal democracy, about transformative social movements past or present, and how we build one today capable of meeting global challenges. As in the early conservation movement, those committed to their own privileged positions in the global economy will go to great lengths to avoid a more revolutionary environmentalism. They have the most to lose by deepening existing links between socialism and ecology. The rest of us have a world to win.

### Endnotes

1. Karl Marx, Letter to Arnold Ruge, September 1843, in *Collected Works of Karl Marx and Friedrich Engels*, 1843-44, vol. 3, [https://www.marxists.org/archive/marx/works/1843/letters/43\\_09-alt.htm](https://www.marxists.org/archive/marx/works/1843/letters/43_09-alt.htm).



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### About the Author



Hannah Holleman is an Assistant Professor of Sociology at Amherst College. She is author or co-author of numerous articles and regularly speaks on subjects ranging from environmental politics to social theory and including mass incarceration, military spending, global inequality, financialization, and ecological imperialism. Her work has appeared in places such as the *American Journal of Sociology*, *The Journal of Peasant Studies*, and *Monthly Review*. Her current book project focuses on water issues in the original Dust Bowl states and addresses the history, political economy, ecology, and social struggles involved in water planning in the region and the broader, international implications of US environmental policy and planning in the context of global climate change. Hannah also is a committed activist, working in solidarity with all those dedicating their lives to leaving things much better than we found them, to working toward a truly great socio-ecological revolution. She holds a PhD from the University of Oregon.

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## Tim Jackson

I am not quite sure why discussions about Marx elicit such eloquence, but they invariably do. Perhaps it is because, at its best, Marx's own writing had the same quality. At any rate, John Bellamy Foster's excellent essay, along with the ensuing discussion, has been no exception. I have been struck throughout by the quality of the writing and the intensity of the arguments: careful thought, lucid prose, and occasional outbursts of pure emotion. Marx clearly still has the power to elicit strong feelings—on both sides of the debate. The sheer level of engagement is a credit both to Foster and to the influence Marx still has.

I would like to comment on two specific aspects of this wide-ranging conversation, each of which resonates strongly within the Great Transition Network, and then to share, anecdotally, the work of the artist Christin Lahr, which I find quite wonderfully subversive and hope you will enjoy as well.

My first point goes to the discussion about materialism and spirituality. Marx's much-quoted view that religion is the "opium of the people" appears on the surface to be downright dismissive of religion and also mildly pejorative towards "the people." But some have argued that this comment was more a critique of society than it was of religion as such, and others would even claim some room, within a broadly Marxist framework, for a more spiritual view of the Great Transition. I would not entirely dismiss this possibility, but I am skeptical of a historical foundation for it for the following reasons.

The declared (and slightly top-heavy) intent of historical materialism was to provide an explicitly evolutionary rationale for the progress of human history and thence for the inevitability of a final socialist state, without any appeal to a purpose higher than human. Though Marx may have been sympathetic to the consolation religion afforded to the masses, I suspect he was no more likely to accord spirituality an ontological status in his theory than was Darwin—of whom Marx





was a huge admirer—in the theory of natural selection. Most latter-day Marxists have inherited this antagonism. Since he did not explicitly mention it in his essay, I would be interested in Foster's take on this.

More relevant to my concern here is the common intellectual root shared not just by Darwin and Marx but also by modern environmentalism in Thomas Robert Malthus. The influence of Malthus on Darwin is extremely well-documented. In its simplest terms, the theory of natural selection has two key components: the idea of spontaneous variation and the process through which these variations are selected in the "struggle for existence." Darwin's notion of struggle was drawn explicitly from Malthus's *Essay on Population*, which had a huge influence on early nineteenth century thought and, of course, still resonates with environmental concerns today.

Marx himself (and indeed many Marxists since) had very little time for Malthus. Perhaps because of the latter's support for the protectionist Corn Laws which caused such misery to the poorest in society; perhaps because of his religious background. Where this rejection of Malthus (commonly regarded as a crucial forerunner of modern environmentalism) leaves an appeal to the ecological intent of Marx I am not entirely sure. But Darwin himself described the influence that Malthus had had on him in no uncertain terms. In an autobiographical essay, published a decade after his death, he shared the following reflections:

In October 1838, that is fifteen months after I had begun my systematic enquiry, I happened to read for amusement 'Malthus on Population,' and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of new species. Here then I had at last got a theory by which to work...<sup>1</sup>



To explain why I find this link between Malthus, Darwin and Marx so interesting, I should say something more about the origins of the *Essay on Population* itself, which are largely ignored by modern environmentalists.

Malthus's father happened to be a close friend of the French philosopher Jean-Jacques Rousseau, whose underlying view of human nature was that “man is naturally good, and only by institutions is he made bad”—a view that stood in stark contrast to the Christian doctrine of original sin and salvation through the church. The origin of evil and suffering was to be found, in Rousseau's view, not in human nature itself, but in the corrupting influences of a civilization based on the notion of private property. The way to redress evil, claimed Rousseau, was to reject civilization and return to the natural state, “for savage man, when he has dined, is at peace with all nature and the friend of all his fellow-creatures.”<sup>2</sup>

Rousseau's utopian views on the perfectibility of human society were highly influential in the late eighteenth century and, later, on Marx. They also provided the foundations for the romantic movement of the nineteenth century to which many latter-day environmentalists appeal. Followers of Rousseau included the British reformer William Godwin, who in 1794 published his *Enquiry Concerning Political Justice*, which had greatly impressed Malthus' father.

At the time he wrote the first *Essay on Population*, Malthus had just taken up a living as a curate in a small parish in Surrey (close to where I live) and was staying on his father's estate in Albury. One evening in 1797, father and son were sitting together discussing the latest edition of Godwin's *Enquiry*. Malthus senior defended Godwin's optimistic views about human society; Malthus junior attacked them. In the aftermath of the argument, Malthus junior felt inspired to set down his case on paper, and the result was the first *Essay*. For Malthus, the import of the population principle lay quite precisely in refuting the romantic view of the savage state as one free from evil and suffering. On the contrary, Malthus argued, suffering was inherent in nature and arose directly from the pressure of population on the means of subsistence.





In destroying the romantics' conception of nature, however, the Parson Malthus was left with a problem in theology: Why should a caring God allow inescapable suffering? Why should an omnipotent God have created a world in which suffering was an integral element in the design? In response to these questions, Malthus dedicated two full chapters in the first *Essay* to propounding a complex theodicy intended to "vindicate the ways of God to man" by providing an explanation of "the constant pressure of distress on man from the difficulty of subsistence."<sup>3</sup>

The divine purpose of creation, in Malthus' theodicy, is the "formation of mind." The world is subject to natural laws that function in such a way as "to awaken inert, chaotic matter into spirit, to sublimate the dust of the earth into soul, to elicit an ethereal spark from the clod of clay." The difficulty of subsistence is a part of the divine plan by providing a stimulus for hard work and an incentive to moral restraint. Thus, evil and suffering, resulting from the inevitable and irreducible pressure of population, exist in the world precisely to rouse man from his natural sloth and achieve a higher purpose—in other words, as a constant stimulus for the formation of spirit out of inert matter.

Much of this theological inquiry was expunged from later editions of the *Essay* and goes virtually forgotten within the environmental legacy of Malthus's work. But it was a critical element in the complex history of ideas from which both Darwin's theory of evolution and Marx's *Das Kapital* emerged. (This history includes, by the way, the strange twist that William Godwin's daughter Mary, later Shelley, was none other than the author of *Frankenstein*: perhaps a more popular creation than any that we have been discussing here—with, of course, its own relevance to sustainability. But that is another story.)

Darwin's answer to Malthus's question was a simple one, captured forever in a short, handwritten letter to a young barrister named Francis McDermot in November 1880. "Dear Sir," wrote Darwin, "I am sorry to have to inform you that I do not believe in the Bible as a Divine revelation, and therefore not in Jesus Christ as the Son of God." It was the most explicit statement of the atheism that had grown steadily within Darwin throughout his adult life. Such is its intellectual



significant that, one hundred and thirty five years later, the letter has just sold at auction for a staggering \$197,000.<sup>4</sup>

His followers were even more explicit. According to the playwright Bernard Shaw, religion had been “knocked to pieces” by the theory of natural selection and “where there had been a God, a cause, a faith that the universe was ordered, and therefore a sense of moral responsibility as part of that order, there was now an utter void...we were quite sure for the moment that whatever lingering superstition might have daunted these men of the eighteenth century, we Darwinists could do without God, and had made a good riddance of him.”<sup>5</sup>

I have dwelt on this history, partly because it illustrates the complex and sometimes perverse ebb and flow of intellectual thought that characterized the period in which Marx was writing, in which natural, social, moral, and religious philosophy were inter-twined and constantly evolving, but also because it shows up the paucity of some of our own simplistic dichotomies. If there is a failing of latter-day Marxism, it is to reduce too many things to a simple dichotomy between capital and labor. If there is a failing of modern environmentalism, it is to thirst too readily for easy answers. We draw hungrily from one-dimensional representations of our intellectual heroes, and in the process gloss over the complexity that might aid a more robust intellectual synthesis.

Religion is a case in point. We may or may not be Marxists. We may or may not be advocates of any particular religion. But neither Marx nor Darwin spoke to the “god-shaped hole” that haunts the human condition and is evident (as Peter Berger shows beautifully in *The Sacred Canopy*) in every culture for which we have anthropological evidence.<sup>6</sup> And the theological views of Malthus, whom we revere as the distant founder of modern day environmentalism, were so dismal as to warrant the allocation of that very adjective to the entire discipline of economics.

Evidence of a god-shaped hole is not of course evidence for a god. But as I have argued elsewhere, a god-shaped hole in the absence of god is fertile ground for the rise of consumerism.<sup>7</sup>



In the face of this complexity, I have to say I am a little skeptical that Foster's new "environmental proletariat" will be a strong enough force to lead us into a sustainable future. But whether it is or not, I think the transition we are searching for would do well not just to engage with the complex intellectual history from which Marxism emerged but also to embark on a thorough exploration of the deeper philosophical and ontological challenges that were left behind by it.

My second point concerns the so-called logic of capitalism. In Foster's essay this is described variously in terms of the inevitability of economic growth or the insatiable accumulation of capital that has to occur within a capitalist system. Clearly, much depends here on how capitalism itself is defined. It may seem obvious to point this out, but to define capitalism in terms of the drive to accumulate capital and then to argue that capitalism is inevitably inconsistent with environmental limits because of the tendency of capital to generate economic growth won't quite do.

Contrariwise, to define capitalism in terms of the ownership of the means of production and then to argue that Marx's ideas are irrelevant simply because communism failed to curb (and sometimes exacerbated) environmental disaster is equally specious. There are too many nuances here, all influenced by the structure of the rather complex institutions of market and state, to jump easily to such simplistic conclusions.

The question of whether there is an inherent growth imperative in contemporary society is, of course, an extremely important one. A number of ecological economists have argued not only that there is such an imperative but that it flows inevitably from some rather basic features of capitalism, such as the creation of money as credit and the charging of interest on debt. If this were shown to be the case, it would certainly seem to rule capitalism out of any sustainable form of post-growth or steady-state economy. But as my colleague Peter Victor and I have recently argued, this does not, in fact, seem to be the case. Our recent paper for *Ecological Economics* illustrates a quasi-stationary economy which is entirely consistent with the existence of credit creation and a money system based on interest-bearing debt.<sup>8</sup>



A more credible candidate for a growth imperative lies in the relentless pursuit of labor productivity. At the very least, it is easy to see that a continual reduction in the labor required to produce a given level of economic output leads (through simple arithmetic) to a stark choice between growth and unemployment. There are answers to this dilemma, for instance, by reducing working hours, by structural shifts towards low productivity sectors, and by redistributing the ownership of capital assets. But it is not clear that any of these are either inherently ruled out by a capitalist economy or inherently ruled in by a Marxist one.

What is clear, of course, is that a relentless accumulation of fixed, physical capital is inconsistent with ecological sustainability. But if a steady state of capital is exclusively the terrain of Marxism rather than capitalism, then it must mean that Herman Daly (who has most cogently articulated this particular foundation for sustainability) is after all a Marxist, which I find mildly amusing given the poor experiences with Marxism that Daly himself has recounted.

Finally, I promised to share the subversive work of a German artist called Christin Lahr. I met Christin in Berlin in five years ago at a panel discussion on capitalism. After the event she presented me with a certificate, which I still have. It is a printout of an online banking page and shows the details of a transaction, a deposit of 1 euro cent, made into the bank account of the German Federal Ministry of Finance. In the ‘reason for payment’ field are 108 characters taken from Chapter 1 of Karl Marx’s *Das Kapital*.

Christin has been paying the same 1 euro cent into the same bank account every day since May 31, 2009, and importing a small portion of the text of *Das Kapital* as the 108-character “reason for payment.” Over the next 38 years, the entirety of Marx’s magnum opus will in this way be transcribed via online banking into the central account of the German government at the Federal Bank. Christin makes a certificate from each transaction and presents each one to someone that she meets. My own personal fragment of *Das Kapital* reads thus:



‘-schaft beider Dinge vertritt: Ihren Wert etwas rein Gesellschaftliches. Indem die relative Wertform einer Wa-‘

Which can be roughly translated as:

‘-operty of both, something purely social, namely their worth. Since the relative form of value of a commod-‘

Of course I can't deny that I might have preferred one of Marx's more famous and colorful sentences. Something like, for instance: 'Accumulate, accumulate! That is the Moses and the prophets!' But all the same, I am rather pleased with my gift—as I hope the German government is with theirs.

### Endnotes

1. Charles Darwin, *The Autobiography of Charles Darwin and Selected Letters*, ed. Francis Darwin ([1892]; New York: Dover, 1958), 68.
2. Jean-Jacques Rousseau, *A Discourse upon the Origin and the Foundation of the Inequality of Mankind* ([1754]; New York: Dover, 2004), <http://www.bartleby.com/168/605.html>.
3. Thomas Malthus, *An Essay on the Principle of Population, as it Affects the Future Improvement of Society, with Remarks on the Speculations of Mr Godwin, M. Condorcet and Other Writers* (London: J. Johnson, 1798), 349.
4. "Charles Darwin's Letter on Bible, God Fetches \$197,000 at Auction," *NDTV*, September 24, 2015, <http://www.ndtv.com/world-news/charles-darwins-letter-on-bible-god-fetches-197-000-at-auction-1222311>.
5. George Bernard Shaw, *Back to Methuselah* (Harmondsworth, UK: Penguin, 1921), 48.
6. Peter Berger, *The Sacred Canopy: Elements of a Sociological Theory of Religion* (Garden City, NY: Doubleday, 1967).
7. Tim Jackson, "Angst essen Seele auf: Escaping the 'Iron Cage' of Consumerism," in *The Economy of Sufficiency: Essays on Wealth in Diversity, Enjoyable Limits and Creating Commons*, eds. Uwe Schneidewind, Tilman Santarius, and Anja Humberg (Wuppertal, Germany: Wuppertal Institute, 2014), 53-68.
8. Tim Jackson and Peter Victor, "Does Credit Create a Growth Imperative? A Quasi-Stationary Economy with Interest-Bearing Debt," *Ecological Economics* (forthcoming 2015).



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### About the Author



Tim Jackson is an ecological economist and writer. Since 2016, he has been Director of the Centre for the Understanding of Sustainable Prosperity (CUSP) at the University of Surrey in the UK, where he is also Professor of Sustainable Development. From 2004 to 2011, he was Economics Commissioner for the UK Sustainable Development Commission, where his work culminated in the publication of *Prosperity without Growth* (2009/2017), which was subsequently translated into 17 foreign languages. His latest book *Post Growth – Life after Capitalism* was published by Polity Press in 2021. Jackson holds degrees in mathematics (MA, Cambridge), philosophy (MA, Uni Western Ontario) and physics (PhD, St Andrews). He is a Fellow of the Royal Society for the Arts, the Academy of Social Sciences and the Belgian Royal Academy of Science. In addition to his academic work, he is an award-winning dramatist with numerous radio-writing credits for the BBC.

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## Giorgos Kallis

I would like to begin by complimenting this excellent essay. It summarizes with an economy of words and simplicity of language the considerable work of John Bellamy Foster in developing the concept of “metabolic rift,” advancing an ecological Marxism, and providing rigorous theoretical foundations for the politics of ecosocialism. Marx’s concept of the social metabolism is indeed crucial for analyzing socio-environmental change. Alongside Foster’s theory of metabolic rift, I would add the path-breaking work of Marina Fischer-Kowalski and the Vienna group on material flow analysis and the long *durée* of civilizational metabolic transitions; Joan Martinez-Alier’s work with our group in Barcelona on ecological distribution conflicts at the frontiers of an expanding global metabolism; and the work of Maria Kaika, Erik Swyngedouw, and other geographers in Manchester and beyond on how capitalism and its power asymmetries shape the metabolism of cities.

I am fully on board with the politics of the essay, summarized under the slogan “system change not climate change.” I agree that “a system of meeting collective needs based on the principle of enough is obviously impossible in any meaningful sense under the regime of capital accumulation.” As Serge Latouche has often argued, degrowth—on which I have written in this platform—is an ecosocialist idea (though it has also heavy doses of communalism, cooperativism, and anarchism, I would hasten to add).

I subscribe also to the call of the essay for a mutual cross-fertilization of Marxian and ecological thought. I was trained as an environmental scientist and ecological economist, but I find Marxian concepts increasingly useful for framing my arguments. These include not only the concepts of social metabolism and metabolic rift, but also Marx’s theory of commodity fetishism and the notion of primitive accumulation, i.e., accumulation not by production but by enclosure and dispossession of the “commoners” from their means of production and subsistence. This process



of “accumulation by dispossession” did not happen once at the beginning of capitalism but, as Silvia Federici and David Harvey have eloquently shown, is a recurrent and integral feature of it, from water and land grabbing to enclosures of the intellectual and digital commons or privatizations of public education and social security. Another useful Marxian idea (with some caveats and elaborations) is Neil Smith’s “production of nature” thesis, according to which humans constantly refashion nature both materially and conceptually, and this is done in ways that reflect and embody in nature asymmetrical power relations.

Having said that, there are three elements in the essay that I would have loved to see more developed, understanding, though, the difficulty of this given the word limits.

First, to the reader unfamiliar with Marxism and current socialist politics, the essay might leave the false impression that ecosocialism is dominant within socialism and Marxism. Unfortunately, it remains marginal. Within the broader scholarly community of Marxists and historical materialists, green thinking is as marginal as ecological economics is within the field of economics. And, unfortunately, this is reflected in the political arena as well, as my limited experience from Greece and Spain and political parties and movements there suggests. The leaders and members of parties like Syriza or Podemos profess in Marxian theory, but unfortunately only few of them would follow Foster on his call for a “steady-state economy...one that stays within the solar budget.” Growth has been a keyword for Syriza, and its intellectuals recourse to notions of underconsumption or dependency theories, advocating nationalizations to relaunch industrial and agricultural growth. The old modernizing Marxian idea of developing the forces of production to their full is unfortunately not a relic of the Soviet past, but alive and kicking in the New Left. The increasingly dismal record of the socialist regimes in Latin America, which were elected with the struggles of indigenous, ecosocialist grassroots movements, but increasingly turn their fire against them as they put obstacles to extraction-based growth, is another case in point.





Many socialist intellectuals with whom I have conversed have rejected my (and John Bellamy Foster's) claim that growth should come to an end. Oversimplifying, the common argument I encounter is that capitalist growth is indeed bad because it destroys the planet for the needs of profit, without serving the needs of people. However, a different "socialist growth" could satisfy human needs and would not have to be limited. Instead, it would have to be pursued as much as possible, as it will benefit the collective and not the capitalists. The greener among such socialists would concede that such growth should be made ecologically sustainable. But for this, they do not find necessary any restriction of economic activity. Instead, like other eco-modernizers, they recourse to better use of technology (be it through conservation, renewable energies, or nuclear energy). Their difference is that they believe that only a socialized economy can rationally develop such technologies and protect the environment; a capitalist economy is bound to irrationally destroy it in the pursuit of profit.

And I think this dominant view has strong roots. Unlike Foster's own theory, the quotes of Marx given in the essay do not suggest a fundamental critique of growth as such or an intuition of an intrinsic incompatibility between economic expansion (capitalist or non-capitalist) and ecological balance. Marx talks about "restoration," governing the "human metabolism of nature in a rational way," and reducing the use of energy as much as possible. No capitalist eco-modernizer would disagree with any of this (although they would disagree, of course, with Marx's thesis that these are possible only with a collective control of the means of production). Leaving aside the political dimension, I do not see the difference in what Marx wrote and current mainstream calls for a "circular economy" with more recycling, more ecological restoration, and more efficiency in resource use.

Did Marx envision a restriction of economic activity in the future as a way of healing the rift? From what I read in this essay, no. His critique was not of the rift per se, but of the fact that the forces of production were not put to 'rational' use to close the loops. In essence, this was a criticism of capitalism for bad use of technique, hinting that a different system, one not driven



by profit, would put technique to better use. Also, for Marx, according to my limited reading of his work, human needs are in principle unlimited. Unlike John Stuart Mill, for example, there is no notion of sufficiency or “enough” in Marxism, nor an expectation of a stage whereby the development of the forces of production will reach a steady state. Of course, this is understandable since Marx was writing in a very different time and context, when industrial revolution was just beginning and when our knowledge of environmental problems and of the limits of technology in solving them was still at its infancy.

In this respect, I would like to hear more from the author about the competition of ideas among contemporary Marxists and his struggles for making fellow socialists more “eco.” How likely does he see a hegemony of ecological ideas among socialists, at the academic and the political realms? What gives him hope, and what despair? And do all ecosocialists agree on the need for degrowth and a steady-state economy, or do some among them think that an “angelic,” green growth is plausible under a planned socialist economy? What did Marx get wrong, and what parts of subsequent Marxian theory pose obstacles to convincing fellow Marxists about a steady-state socialism?

Second, I would like to see a more critical reflection of dogmatism within Marxism and the obstacles this puts in creating a common front with ecology (and other social and intellectual movements). My own experience is that, unfortunately, the plural and open Marxism promoted by writers like John Bellamy Foster, David Harvey, and my many Marxist friends with whom I have the luck to converse and collaborate, is not the only one—nor the dominant one—in academia (or in political and social movements). I sense sometimes as strong a dogmatism among orthodox Marxist political economists as among their neoclassical peers.

Along these lines, I find it hard to understand sometimes the preoccupation of Marxist scholars with what Marx himself thought or wrote, unearthing obscure correspondences and exchanges of his. I have seen so many fights over whether Marx said this or that, whether he was green or not, or whether he liked or hated cooperatives, etc., the usefulness of which escapes me.



Marx was a human like all of us, and in the thousands of pages he wrote, I am sure one can find elements that make him a proto-ecologist as well as others that make him an ardent productivist. The point is not what Marx thought or believed, but what theories can be developed today, inspired from the (contradictory) ideas that one can find in his work. Indeed, Foster does precisely this, i.e., he develops a new theory of metabolic rift inspired from a few sentences Marx wrote on it. For reasons though that I do not fully understand, he attributes his theory to Marx himself. Marx's acute observations about fertilizers and soil erosion at his time, or the concerns about pollution he exchanged here and there with Engels, far from constitute a "theory of metabolic rift," or an "incorporation of thermodynamics" in political economy (to use Foster's words). And this is fine: I don't mean it as a criticism of Marx. Marx has said so many important things, so why is it so crucial to prove that he was also the first ecological economist or the first to integrate thermodynamics into economic analysis?

I would not put too much emphasis on this point if I was not worried that this tendency in the Marxian tradition to recourse to "the original scriptures," akin to that of religious scholars, is not independent from the dogmatism that I have sometimes encountered among some of them. I have come across situations whereby criticizing a Marxian concept or a political action derived in its name, I am called upon from a Marxist friend for not having read the whole opus of Marx, or for not being fully familiar and competent with his vocabulary and concepts (which reminds me of neoclassical economists asking me first to master the math and then dare to question their theories). I feel much more comfortable with "neo-Marxists," like those of the first wave of ecosocialism to which the essay refers (Andre Gorz for example), who take many ideas from Marx but also discard other ideas of his that are outdated or outright wrong and meriting correction. I am more easily convinced by Marxists who tell me that Marxist also got something wrong. And I would prefer if Marxian theory were not named after a man, but after the essence of its thought (economics is not called Smithianism), and if instead of going always back to the original source, it built up on its cumulative progress (a neoclassical economist who wants to do growth or trade theory does not have to cite the relevant paragraphs from Smith or Ricardo, or scratch them for



their hidden meaning). The starting premise that Marx has said it all, and nothing that he said is possibly wrong, becomes problematic per se and puts obstacles to interdisciplinary dialogue, including with ecologists. To have a dialogue and build an alliance, one has to start from the stance that his or her worldview is partial and limited, unavoidably wrong in some, if not many, respects.

My final point is more conceptual and substantial. Foster writes that “capitalism as a system is intrinsically geared to the maximum possible accumulation and throughput of matter and energy” and that continued “economic growth (in its more abstract) or capital accumulation (viewed more concretely)...cannot occur without expanding rifts in the Earth system.” I am afraid that three different concepts are being used as equivalent here: capital accumulation, GDP growth, and growth in the throughput of matter and energy. Experience and history suggest that these three move together, but one can, at least in theory, conceive their decoupling. We have to do more theoretical work to substantiate our intuition that there is an inextricable link between them.

First, it is plausible to conceive of GDP growth without growth in material and energy throughput (and this is indeed what some socialists or even ecosocialists believe can be the case under socialist growth). I believe it is unlikely, but I did not find strong arguments in the essay why this is so from a Marxian (or not) perspective.

Second, it is not true that capital accumulation requires GDP growth. Austerity and regressive redistribution can squeeze more out of the workers and ensure aggregate capital accumulation in the absence of growth. It is also not clear to me why capitalism requires aggregate accumulation in the abstract; even within a trajectory of reduced or negative accumulation, you may have firms that make profits and accumulate and others that do not. I can understand a concrete, political and historical argument: economic growth eases redistributive pressure and hence reaction against capital; aggregate accumulation makes it more likely for any individual firm to have profits. So it is extremely unlikely that the elites and the vested corporate interests



that hold economic power will voluntarily concede to degrowth, as, other factors equal, this would make their profits much harder to sustain and their political supremacy more vulnerable. But this is no a priori, theoretically necessary relationship between throughput, growth, and accumulation (and hence capitalism). Capital accumulation can well continue without growth, and the current crisis is an example; it is political agency and collective action that threaten continued capital accumulation in the absence of growth.

Third, in socialist economies, capital accumulation came to an end (since there were no longer any capitalists to accumulate), but economic growth continued. One may as well argue that these were, in effect, “state capitalist” economies, the state accumulating and investing for further accumulation (and this would be consistent with Foster’s definition of capitalism). Is then a genuine socialist economy one that stops accumulation (state or private) all together? And if so, do we agree that then the idea of socialist growth is an oxymoron?

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### About the Author



Giorgos Kallis is an ecological economist, political ecologist, and Catalan Institution for Research and Advanced Studies (ICREA) Professor at the Institute of Environmental Science and Technology, Barcelona. He is the coordinator of the European Network of Political Ecology, the editor of *Degrowth: A Vocabulary for a New Era*, and the author of *Limits and The Case for Degrowth*. His research is motivated by a quest to cross conceptual divides between the social and the natural domains, with particular focus on the political-economic roots of environmental degradation and its uneven distribution along lines of power, income, and class. His current work explores the hypothesis of sustainable degrowth as a solution to the dual economic and ecological crisis. He was previously a Marie Curie Fellow at the Energy and Resources group at UC Berkeley, and he holds a PhD in Environmental Policy from the University of the Aegean, an MSc in Economics from Universitat Pompeu Fabra, and an MSc in Environmental Engineering and a Bachelors in Chemistry from Imperial College, London.

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## Kent Klitgaard

When analyzing the relationship between Marxism and ecology, we must reflect on a key question: How does the capitalist economy work in the modern world?

More specifically, is the current focus on economic growth (or, more precisely, capital accumulation) part of the inner logic of the system, making the idea of a capitalist steady state, or planned degrowth within the confines of the system, oxymoronic? Or is the emphasis on growth the result of misguided policy?

If growth economics is the result of bad policy choices, we can fix the problem within a Policy Reform scenario. We can choose wise leaders who will retain the benefits of efficient markets while pushing for a more just distribution and sustainable macroeconomic scale.

But what if this is not the case? If growth and accumulation are part of the inner logic of the system, then we are going to have to modify greatly the institutional framework, if not replace it, in order to avoid the worst aspects of a failed growth economy: persistent and grinding poverty, inequality, unemployment, and unused productive capacity.

From the Marxian perspective, the answer is clear. Marx defined capital not as a thing (produced means of production), but as a process of self-expanding (exchange) value. Capitalists hire wage laborers and pay them at a socially determined value to transform the use values found in nature into sellable commodities. The resulting surplus is then reinvested into the production process to reduce the cost of production and improve productivity. Competition makes this process an imperative. Periodically, capitalists overinvest and cannot realize their profits, and the economy succumbs to depression. The depression restores the conditions for prosperity. Productivity, or the rate of surplus value, rises again, bankruptcy removes excess capacity, and the system rebounds. On the level of the firm, success depends upon efficiency.





But by the turn of the century, fossil fuels increased the surplus dramatically, and smaller regional businesses became more monopolized. They began competing on lowering cost and expanding markets, and not by means of competing by lowering prices. With co-respective behavior characterizing the behavior of big business (oligopolies), the surplus rose. If sufficient spending outlets are not found, the system slips into slow growth or stagnation.

A bigger surplus requires more spending. We can consume it, we can invest it, or we can waste it. From this perspective, enunciated by Paul Baran and Paul Sweezy (founder of *Monthly Review*), stagnation is the normal state of the economy. Since investment also creates more productive capacity and surplus to be absorbed, the solutions require conspicuous consumption and waste. If not, then the statistical trace is left in the form of unemployment, boarded up factories, soaring degrees of inequality, and grinding poverty. Financial speculation can boost the system for a while, but, as we saw in 2008/9, this too is subject to limits.

But none of these can possibly form the basis of a Great Transition. We need to live within nature's limits, but we also need to provide decent work and decent incomes to the people who live here. If the logic of growth and accumulation is built into the system, and the solution is more waste and more consumption, then we need to rethink the system. We should certainly not dismiss out of hand the tradition of Marxism because he denigrated Malthus or because Soviet Marxism did not turn out as expected.

Let me end with a final note on Malthus. Malthus was certainly insightful about the clash between biophysical capacity and population growth, although he did not see the expansion of carrying capacity by means of the advent of anhydrous ammonia as fertilizer. Malthus believed, like all classical political economists, that the natural outcome of capitalism was the stationary state. The causes were population growth that exceeded food production and overinvestment (and too much saving) on the part of capitalists. He proposed solutions as well. To control population in the cities, we should crowd more people into smaller houses and court the return of the plague. In the countryside, we should build our villages near stagnant ponds and keep





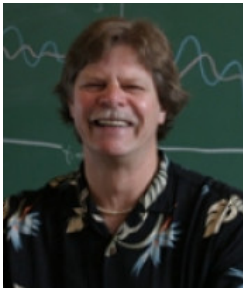
doctors from attending the poor. To solve overinvestment, we should redistribute income to the aristocracy, who would waste it on personal servants and monuments to themselves.

These Malthusian solutions do not, to me, seem like the basis of a new sustainability paradigm.

Do I ask my students not to read Malthus because I find his morals abhorrent even though some of his analysis was insightful? No. I ask them to read him critically. I hope the same goes for Marx and his modern interpreters such as John Bellamy Foster.

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### About the Author



Kent Klitgaard is a Professor of Economics at Wells College in Aurora, New York. He teaches a wide array of courses ranging from ecological economics, political economy, globalization, and energy and the economy, as well as a first-year seminar on Sustainability and the State of the World. He is the co-author of *Energy and the Wealth of Nations*, along with Charles Hall, and has been published in *Sustainability*, *Ecological Economics*, *Conservation Biology*, and the *International Journal of Transdisciplinary Research*. He received his PhD from the University of New Hampshire in 1987. In addition to teaching and writing, Kent has also worked as a carpenter, a cabinet-maker, and a union organizer.

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## Ashish Kothari

John Bellamy Foster's writings, including the present one, have done much to bring to us fresh insights into Marx's thoughts on environment, in itself valuable given that the stereotypical image of Marx and the record of many regimes and movements claiming to be "Marxist" have little place for ecological sensitivity. For that, I am grateful. My comments below are in the context of an overall agreement with Foster's key message.

Perhaps in the case of any activist-scholar like Marx, who writes prolifically and with complexity, and who evolves in these writings over his lifespan, one can find some elements of virtually all social concerns at one place or the other. I can think of Gandhi in the same terms. But in such a situation, one question to be asked is, how central was ecological thought in Marx? If it was, why has "orthodox" Marxism hardly ever acknowledged it? If it was not, is it fair to portray Marxism as a powerful ally of the ecological movement? I am not well-read enough to have inclinations towards an answer, so I am only asking these as questions. It seems to me that Foster's description of the rift between Russian and Western "Marxists" is part of the answer, but given that many other crucial parts of what Marx wrote and said have not gone into oblivion as much as the environmental part has, I wonder if the other part of the answer is that it simply was not as central as, say, class struggle. Here in India, orthodox Marxists have not only ignored, but actually looked down upon, environment and ecology as a central concern, which has led to great difficulties in bringing together potentially revolutionary movements of various kinds. (This, of course, is not the only cause: narrow environmentalism that does not look at class, caste, and gender inequities has played its role too.)

While I am fully convinced that a Marxist approach of the kind Foster presents is important to the struggles for a saner world, I am not convinced that it by itself is sufficient, nor that it is always necessary. Powerful arguments towards sustainability and social justice also come from ethical



standpoints that have other origins, e.g., spiritual thinking and living (I am deliberately not saying “religious,” as that has dogmatic and rigid institutional connotations).

In this context, I would like to make two points. First, a purely materialist approach (noting that this has nothing to do with materialism of the capitalist/accumulative variety) has its limitations, for I think humanity’s relationship to/within nature and to itself goes beyond what is purely material, and that non-material relations are a powerful stimulus towards ethical behavior towards all life (and even non-life). It seems to me that indigenous peoples have so far been the most sustainable on earth, relative to all other peoples, and they have a deeply spiritual view of their own place in the universe that underlies their respectful treatment of the earth. This may not necessarily be in contradiction with Marx’s version of materialism, but it certainly does not seem to be central to it, and has also certainly been displaced by most people and regimes calling themselves Marxist.

Second, although Foster says it is socialists who will play a leading role in the Great Transition, I would add that there will be—and, in fact, already are—a number of others who could not (except by a major stretch) be called socialists, such as indigenous peoples’ movements or spiritual movements. Of course, this is not meant as a critique of Foster, for he has not said “only” socialists, but as a reminder of a crucial dimension to question of who will lead the way to a saner world.

In this sense, I do think that the following statement needs to be critically examined: “Ecology as we know it today thus represents the triumph of a materialist systems theory.” If Foster is referring to “ecology” as the scientific study of ecosystems and the environment, then I have no quarrels. But if he is referring to an ecological worldview, with all it entails regarding our relationship with the earth (and other species), then its origins are certainly not restricted to materialism. I guess this also depends on who Foster means by “we” in the above statement. Who is “we”? If it means those of us who may be part of formal academic circles, then fine. If it means “all of us,” as in, for example, “all those in the environmental movement,” then not fine. An ecological worldview



for an indigenous person in the Amazon, or a traditional fisherperson on India's coast, would not arise from a "materialist systems theory," but from a material and spiritual connection with the forest, sea, and wildlife around them. The above would be encompassed in a Gandhian perspective, and while this is not the place for an extensive Marx vis-à-vis Gandhi discussion, let me pose a quick a question for Foster: How would an indigenous or other traditional community perspective, or a Gandhian perspective, both of which arrive at ethical behavior via routes broader or other than materialism, be viewed by an ecologically resurrected Marx?

This is not only an academic discussion, but also a very practical one. Many movements in the world are inspired by such worldviews, just as many are by Marx's views, and there is a desperate need for all of them to collaborate if we are to have any hope of defeating both centralized state power and capitalist corporate power. If they—we—can go beyond our assumed (or maybe sometimes real) differences or dualisms and see essential commonalities, this would be more possible.

Finally—and this may sound minor but is not—I think we who want a fundamental transformation of the world need to go beyond the language of "sustainable development." I recognize that Foster means it more in the sense of "qualitative, collective, cultural," but the term is now so heavily impregnated by the "green economy" and even "green growth" approaches that are predicated on more and more material and energy flows that I think we have to debunk and replace it. There are many ancient and new terms now being adopted by movements around the world more in the rubric of "well-being" that can be explored.



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### About the Author



Ashish Kothari is on the core team of the Global Tapestry of Alternatives, and a coordinator of Vikalp Sangam in India. He has taught at the Indian Institute of Public Administration, coordinated India's National Biodiversity Strategy and Action Plan process, and served on the boards of Greenpeace International and Greenpeace India. He is co-author of *Churning the Earth: Making of Global India* and co-editor of *Alternative Futures: India Unshackled* and *Pluriverse: A Post-Development Dictionary*.

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## Fred Magdoff

The Great Transition Initiative is a reflection of the growing understanding that the very way capitalism functions is at the center of the ecological crisis that befalls the earth and its inhabitants. For this reason, people associated with the Initiative have written that they "... envision the advent of a new development paradigm redirecting the global trajectory toward a socially equitable, culturally enriched, and ecologically resilient planetary civilization." But why does capitalism—which I would describe as an economic system rather than a "development paradigm"—need replacing? What would a "socially equitable, culturally enriched, and ecologically resilient planetary civilization" be like?

The significance of Karl Marx for the GTI is that his work offers a comprehensive analysis and understanding of capitalism—not only as an economic system, but also in terms of its political, social, and ecological ramifications. The development of his ideas and theories did not come out of thin air. Rather, they were based on an incredible amount of hard work—detailed studies of history, economics, anthropology, science, and consultation of government documents.

As John Bellamy Foster has laid out in detail, Marx and Frederick Engels were aware of the negative effects that capitalism was having on the ecosystem. Their remarkable writings contain what can only be considered as advanced ecological concepts, very much concerned with the human interaction (metabolism) with the rest of natural world, especially in relation to the growth of capitalist economies in the nineteenth century.

Let me summarize my view of the key ideas that come directly out of the Marxist tradition as they relate to our current environmental crisis.

The "laws of motion" of capitalist economies govern the operation of the system at its most basic level and compel it to strive to attain continual growth of individual firms (with competition



and buyouts destroying some in the process, leading to larger and larger companies) and the entire economy. In the process, capitalism expands geographically to become a world system—something that was evident from its very inception in the sixteenth and seventeenth centuries. There can be no such system as “no-growth capitalism.” For when growth falters (recessions and depressions), the system falls into economic crisis, with much human suffering. Also, there can be no such concept as “enough” in capitalist economies, because in order to accumulate ever greater amounts of capital—the driving force of the system—new products are created continually, and more of all products must be sold next year than this one. This drives a complex and multifaceted sales effort—amounting to some ten percent of the economy—to convince people that they “need” these products. Capitalists and their allies also work politically, militarily, and economically to eliminate barriers to accumulation of profits—the unstated but underlying goal of deregulation efforts, reduced taxes on corporations and the wealthy, the multilateral trade agreements such as NAFTA, the WTO, covert actions to destabilize “unfriendly” governments, and outright warfare.

As capitalism normally operates, what economists nowadays call “externalities” are created—negative social and ecological effects. Not needing to avoid or remedy the “externalities” (except for a few regulations to curb some of the excesses) is key to capitalism’s profitability. As Engels wrote in the nineteenth century,

What cared the Spanish planters in Cuba, who burned down forests on the slopes of the mountains and obtained from the ashes sufficient fertiliser for one generation of very highly profitable coffee trees—what cared they that the heavy tropical rainfall afterwards washed away the unprotected upper stratum of the soil, leaving behind only bare rock! In relation to nature, as to society, the present mode of production is predominantly concerned only about the immediate, the most tangible result.<sup>1</sup>

It is capitalism’s inability to rationally regulate the human interaction with nature and its resources that results in environmental crises (local, regional, and global) as well as depletion of resources,





threatening the lives of generations to come. This is the problem addressed in Marx's famous theory of the metabolic rift. As Naomi Klein notes in *This Changes Everything*, "Karl Marx... recognized capitalism's 'irreparable rift' with 'the natural laws of life itself.'...[Today] the Earth's capacity to absorb the filthy byproducts of global capitalism's voracious metabolism is maxing out."<sup>2</sup>

Fulfilling everyone's basic needs on an equitable basis so as to allow for the development of each person's full human potential will require the conscious regulation of the interactions between humans and resources. While this does not guarantee an ecologically sound economy, attaining such a goal is inconceivable without the people who actually do the work taking into account the needs of posterity. For example, if local fisheries are under the control of people in coastal villages—rather than in the hands of large commercial trawlers owned by companies trying to maximize profits—there is the need to fish in ways that preserve the productivity (or better yet, reproductivity) of this important resource.

The only way to consciously regulate the interaction with resources is through a democratic approach that takes seriously Marx's contention, quoted by Foster, that "[e]ven an entire society, a nation, or all simultaneously existing societies taken together, are not owners of the earth. They are simply its possessors, its beneficiaries, and have to bequeath it in an improved state to succeeding generations as *boni patres familias* [good heads of the household]."

### Endnotes

1. Frederick Engels, "The Part Played by Labour in the Transformation from Ape to Man," in Karl Marx and Frederick Engels, *Collected Works* (New York: International Publishers, 1975), vol. 25:463.
2. Naomi Klein, *This Changes Everything* (New York: Simon and Schuster, 2014), 177, 186.



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### About the Author



Fred Magdoff is Emeritus Professor of Plant and Soil Science at the University of Vermont. His areas of interest include agriculture and food, environment, and the US economy. His research at UVM was on ecologically sound ways to improve soil fertility, especially focusing on the critical role of soil organic matter. He is the co-author of the third edition of *Building Crops for Better Soil: Sustainable Soil Management* and *What Every Environmentalist Needs to Know About Capitalism*, and other books on agriculture and on the US economy. He has published numerous articles on environmental issues, including on ecological agriculture, production and use of biofuels, ecological civilization, population and global resource depletion, and the environmental and social problems of capitalist agriculture. He holds a PhD from Cornell University.

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## Rasigan Maharajh

Congratulations to John Bellamy Foster for the wonderfully succinct and lucid elaboration on matters critical to our contemporary conjuncture. I found the exposition clear and cogent. Having clearly articulated the “complex, interconnected [co-]evolution” of Marxian ecological analysis, Earth system theory, and the Great Transition perspective, I share your proposition that “the integrative concept of ‘the global ecological rift’ [does represent] a growing convergence.” My resonance with your proposals for “common fonts of a Great Transition” derives from a shared critique of the contemporary political economy.<sup>1</sup>

Thanks also for sharing your conception of the chasm between Soviet and Western Marxism. Towards advancing the emergent “common font,” I very much encourage a broader representation of the debates amongst those generating theoretical determinations arising from struggles against imperialism, colonialism, and the predatory corporate financialized capitalism by wider working-class movements, mass-based organizations, and other formations of civil society. I believe that including such perspectives would complement and expand the literature forged in active economic, social, and political contestations.

For sustainable human development to be realized, we must collectively recognize that the “rational regulation of the metabolism between human beings and nature [is] fundamental to creating a rational society beyond capitalism.” My experiences in the southernmost part of Africa, perspectives from the global South, and aspirations as a global citizen serve to affirm that such a necessary and progressive endeavor is, however, unobtainable within the accumulative constraints of K and its current predatory corporate form. In the struggle to survive today’s “morbid symptoms” and construct a better and harmonious life for all, we are undoubtedly enjoined as fellow travelers. I would, however, urge caution against an over-compartmentalization of our struggles. I would suggest that we could approach socio-political



and ecological transformation as being both inseparable and coterminous. In living through a variant of the two-stage conceptualization of transformation in my current location, I further appreciate embracing persistent transitions that are informed by inclusion, participation, and learning by doing.

Socialists and other progressives have and continue to generate valuable insights and practices that afford us liberatory potentials. Much has and, further, can be learned from the ongoing struggles against capitalism across the planet. Encouraging and facilitating the emergence of alternatives to the wage nexus, market fundamentalisms, ecological destructions, and other predatory accumulative and corporate strategies remains a critical and crucial task in the current conjuncture. Building together, we must ensure “equitable and sustainable human development in lasting accord with the earth.” Nurturing progressive movements that defend the marginalized and oppressed from the violence and brutalities of the world capitalist systems forms another fundamental task of our times. Such alternative organization configurations may well serve to advance global solidarity and cooperation. Transcending national boundaries is another fundamental which, whilst previously argued, has the potential of being further elaborated in the current text: “it is clear that a spectre is haunting capitalist globalization: the spectre of a new internationalism.”<sup>2</sup> Our survival, and possibilities to thrive, on Earth definitely demands an “integrated planetary praxis.” Thanks again for advancing common fronts for OUR great transition.

### Endnotes

1. Rasigan Maharajh, “The Metabolic Rift, Anachronistic Institutions and the Anthropocene,” *SPANDA Journal* 6, no. 1 (July 2015): 1-10, [www.spanda.org/SpandaJournal\\_VI,1.pdf](http://www.spanda.org/SpandaJournal_VI,1.pdf).
2. John Bellamy Foster, “Marx and Internationalism,” *Monthly Review* 53, no. 3 (July 2000): 11-22, <http://monthlyreview.org/2000/07/01/marx-and-internationalism/>.



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### About the Author



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## Author's Response



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The purpose of my Great Transition essay was to seek common ground and to demonstrate the importance of Marxian theory in forging a broad popular alliance in the face of the present planetary emergency. In response to those who have asked “Why Marxism?” my answer is that it is precisely socialism that reaches out to the majority of the world’s population, “the wretched of the earth,” envisioning a sustainable human transition in which their role is central. It is potentially the largest, most coherent movement for revolutionary change in the world, visible today in mass actions taking place on every continent, and embracing the struggles of hundreds of millions of people worldwide. (See David Barkin’s powerful comment.)

The new discoveries within Marxian ecology, reaching back to the foundations of historical materialism, are as important today as were the revelations on Marx’s theory of alienation in the 1960s. What is crucial is how Marxian thought is able to cross the “fissure” (as Paul Raskin calls it) separating the struggles for social justice and ecology through a critique of the system that simultaneously addresses both of these contradictions.

The meaning of materialism is a common source of confusion in discussions about the relationship between Marxism and environmentalism. The older meaning, going back to ancient Greek philosophy (particularly Epicurus) and incorporated into modern science, has to do with the rejection of teleological thinking or final causes, and is akin to the notion of naturalism. The later meaning, which arose in the Christian polemic against materialist philosophy and science, refers to the pursuit of worldly goods, commercialism, etc.<sup>1</sup> It is, of course, the older meaning intrinsic to science which I evoked in my essay. Marxism is materialist in its emphasis on material-sensuous existence as the starting point. But this does not prevent it from developing alliances with some humanist religious movements, such as liberation theology.





It is not uncommon to see Malthus enlisted to combat Marx (Tim Jackson's response explores some of the intellectual history). Malthus is generally despised by socialists (see Kent Klitgaard) as the epitome of Alexander Pope's "man's inhumanity to man." He was a sworn enemy of the working class. His treatment of the population-food problem was directed at justifying class hierarchy and poverty. It had nothing to do with an ecological perspective, which, as Eric Ross has shown, only came to be associated with his thought with the rise of neo-Malthusianism in the 1940s, and even then lacked any scholarly basis. Ironically, Marx, in his critique of Malthus, wrote about "overpopulation," taking it seriously as a historical problem, while Malthus avoided the term (referring instead to an "overcharged population") since it was in conflict with his strict equilibrium population-food theory. Malthus denied the existence of natural limits with respect to "raw materials," contending that they were in "great plenty" and that "a demand will not fail to create them in as great a quantity as they are wanted."<sup>2</sup>

There are also common confusions regarding Marx's approach to the labor theory of value. Marx makes a crucial distinction between wealth and value (and between use value and exchange value). Wealth, for Marx, was derived from both nature and labor, and was associated with the production of natural-material use values. In contrast, value (or exchange value) under capitalist commodity production—as expressed by the labor theory of value of classical political economy—excludes nature, which is treated as "a free gift...to capital." Hence, nature (real wealth), as Marx emphasized, was systematically robbed.<sup>3</sup> Here it is important to remember that Marx was a *critic of capitalism*. The labor theory of value was the key to explaining capitalism's laws of motion, but the real object was not to understand capitalism but to transcend it—including the commodity-value relations on which it was based.

I found the attempt in some responses (Jackson and Giorgos Kallis) to dissociate capitalism from the accumulation of capital to be at variance with history, theory, and logic. The Marxian approach focuses on accumulation as the defining characteristic of capital as a social relation, rooted in the class-based exploitation of labor. It is this that constitutes the driver of the entire



system (see the comments by Fred Magdoff and Klitgaard). As Joseph Schumpeter stated, “a stationary capitalism would be a *contradictio in adjecto*.”<sup>4</sup> To argue, as some non-Marxian ecological economists now do, that capitalism can exist over the long run with no net capital formation (necessary for zero economic growth) is to deny not only the expansive character of the system, but also its entire set of class-property relations.

Did Marxism, as some have charged, fail to embrace ecology readily in the 1960s and 70s (or earlier)? A more accurate assessment would be that, while socialists have always been at the forefront in the development of ecology, the socialist movement as a whole—as was also the case for liberalism—consistently lagged behind its most advanced thinkers where ecology was concerned. It is true that the USSR (which, in the course of the Stalinist era, became an extremely oppressive regime far removed from Marx’s notion of a socialist society controlled by the associated producers) did extensive environmental damage. But it was hardly alone in that regard. It is worth noting—in contradiction to simplistic views of the Soviet Union as a monolithic society—that in the late 1970s and early 1980s the USSR gave rise to the biggest environmental movement of any country in the world, with 32 million in its largest conservation organization. As was the case everywhere in the world, environmentalism arose in the USSR as an oppositional movement. But Soviet environmentalism was distinctive, as Douglas Wiener has demonstrated, in the degree to which it was led from the 1960s on by high-ranking scientists. It was in the USSR that the danger of accelerated climate change was first raised within science.<sup>5</sup>

What we must remember in all of this is that the Great Transition, if it is not to be a mere slogan, depends on creating common ground, *a new earthly commons*. This demands an epoch-making alliance of humanity in movements throughout the world. But that, in turn, requires, as Hannah Holleman explained, developing a “revolutionary environmentalism” committed to the needs of “the earth itself and [the] 99 percent.” In the present planetary emergency, there is no other answer. It is here that Marxism has a central role to play.



### Endnotes

1. Raymond Williams, *Key Words* (New York: Oxford University Press, 1983), 197-201.
2. Thomas Malthus, *An Essay on the Principle of Population and a Summary View of the Principle of Population* ([1798]; London: Penguin, 1970), 100, 120, 134; Eric B. Ross, *The Malthus Factor* (London: Zed, 1998); Karl Marx, *Grundrisse* ([1858]; London: Penguin, 1973), 604-08; John Bellamy Foster, *Marx's Ecology* (New York: Monthly Review Press, 2000), 81-104, 142-44.
3. Karl Marx and Frederick Engels, *Collected Works* (New York: International Publishers, 1975), vol. 37, 733; Karl Marx, *Critique of the Gotha Programme* (New York: International Publishers, 1938), 3-4.
4. Joseph Schumpeter, *Essays* (Cambridge, MA: Addison-Wesley, 1951), 293.
5. John Bellamy Foster, "Late Soviet Ecology and the Planetary Crisis," *Monthly Review* 67, no. 2 (June 2105): 1-20; Douglas R. Weiner, "The Changing Face of Soviet Conservation," in *The Ends of the Earth*, ed. Donald Worster (Cambridge, UK: Cambridge University Press, 1988), 252-73.